CLAIM LISTING

1-16 Canceled

17. (New) A cooling device for an electronic component, the cooling device including:

(a) a first heat sink part having a component surface adapted to be placed in a heat transfer relationship with the electronic component;

(b) a second heat sink part adapted to be placed together with the first heat sink part in an operating position;

(c) one or more first projections making up a contact surface of the first heat sink part, and one or more second projections making up a contact surface of the second heat sink part, wherein the contact surface of the first heat sink part is adapted to mate with the contact surface of the second heat sink part with the one or more first projections interdigited with the one or more second projections when the first heat sink part and the second heat sink part are placed together in the operating position;

(d) one or more channels formed in the second heat sink part at least partially through one or more of the second projections for carrying a flow of liquid coolant there through; and

(e) a supply connection and a return connection included with the second heat sink part, wherein both the supply connection and the return connection are in fluid communication with the one or more channels.

18. (New) The cooling device of claim 17 wherein the first projections and the second projections have beveled, flat sides and a trapezoidal cross section.

19. (New) The cooling device of claim 18 wherein the first projections comprise first ribs extending laterally across the first heat sink part and the second projections comprise second ribs extending laterally across the second heat sink part.

20. (New) The cooling device of claim 17 wherein the second heat sink part includes two or more channels and has in the region of the supply connection or the return connection a collection chamber in fluid communication with the two or more channels.

21. (New) The cooling device of claim 17 wherein the contact surface of the second heat sink part is larger than the contact surface of the first heat sink part in at least one lateral dimension and wherein the first projections and the second projections are formed so that the first heat sink part and the second heat sink part may be placed together in multiple different operating positions with the first projections interdigited with the second projections.

22. (New) The cooling device of claim 17 wherein the first heat sink part is formed as a heat pipe.

23. (New) The cooling device of claim 17 further including a first attachment arrangement for detachably connecting the first heat sink part to the electronic component to be cooled.

24. (New) The cooling device of claim 23 further including a second attachment arrangement for detachably connecting the second heat sink part to the first heat sink part independent of the first attachment arrangement so that if the second heat sink part is detached from the first heat sink part, the first heat sink part may remain connected to the electronic component via the first attachment arrangement.

25. (New) An electronic component cooling system including:

(a) a rack for storing several electronic systems, each electronic system including one or more electronic components to be cooled; and

(b) for each electronic component to be cooled, a cooling device including,

(i) a first heat sink part having a component surface adapted to be placed in a heat transfer relationship with the electronic component;

(ii) a second heat sink part adapted to be placed together with the first heat sink part in an operating position;

(iii) one or more first projections making up a contact surface of the first heat sink part, and one or more second projections making up a contact surface of the second heat sink part, wherein the contact surface of the first heat sink part is adapted to mate with the contact surface of the second heat sink

part with the one or more first projections interdigited with the one or more second projections when the first heat sink part and the second heat sink part are placed together in the operating position;

(iv) one or more channels formed in the second heat sink part at least partially through one or more of the second projections for carrying a flow of liquid coolant there through; and

(v) a supply connection and a return connection included with the second heat sink part, wherein both the supply connection and the return connection are in fluid communication with the one or more channels.

26. (New) The cooling system of claim 25 further including a central coolant reservoir, and wherein at least two of the cooling devices are arranged with their respective supply connection and return connection connected to the central coolant reservoir.

27. (New) The cooling system of claim 26 wherein the central coolant reservoir is arranged in or on the rack.

28. (New) The cooling system of claim 25 further including for each cooling device a supply line which connects the supply connection of the respective cooling device to a central coolant supply conduit included in the rack, and a return line which connects the return connection of the respective cooling device to a central coolant return conduit included in the rack.

29. (New) The cooling system of claim 28 wherein the central coolant supply conduit is a rigid conduit fixed in the rack and each supply line includes a flexible portion, and wherein the central coolant return conduit is a rigid conduit fixed in the rack and each return line includes a flexible portion.

30. (New) The cooling system of claim 28 wherein the total length of each combination made up of the supply line to a respective cooling device and the return line from the respective cooling device is approximately equal for each cooling device.

31. (New) An apparatus including:

(a) an electronic component;

(b) a first heat sink part in a heat transfer relationship with the electronic component;

(c) a second heat sink part placed together with the first heat sink part in an operating position;

(d) one or more first projections making up a contact surface of the first heat sink part, and one or more second projections making up a contact surface of the second heat sink part, wherein the contact surface of the first heat sink part mates with the contact surface of the second heat sink part with the one or more first projections interdigited with the one or more second projections when the first heat sink part and the second heat sink part are in the operation position;

(e) one or more channels formed through the second heat sink part at least partially through one or more of the second projections for carrying a flow of liquid coolant there through; and

(f) a supply connection and a return connection included with the second heat sink part, wherein both the supply connection and the return connection are in fluid communication with the one or more channels.

32. (New) The apparatus of claim 31 wherein the first projections and the second projections have beveled, flat side and a trapezoidal cross section.

33. (New) The apparatus of claim 32 wherein the first projections comprise first ribs extending laterally across the first heat sink part and the second projections comprise second ribs extending laterally across the second heat sink part.